

REMARKS/ARGUMENTS

Claims 2, 4-16 and 20-34 were pending. Claims 2, 5, 20, 23 and 32 have been amended, and no claims have been added. Claims 9, 21, 24-26, 33 and 34 have been canceled, without prejudice, for later filing in a continuation or other related application. Hence claims 2, 4-8, 10-16, 20, 22, 23 and 27-32 are now pending. Reconsideration of the subject application as amended is respectfully requested.

Claims 2, 4, 5, 8, 20, 22, 24-26, 30 and 32-34 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Hsu et al., U. S. Patent No. 5,480,828.

Claims 6, 7, 21 and 29 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hsu et al. as applied to claims 2, 4, 5, 8, 20, 22, 24-26, 30 and 32-34 above, and further in view of Wright et al., The Effect of Fluorine in Silicon Dioxide Gate Dielectrics.

Claims 10 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hsu et al. as applied to claims 2, 4, 5, 8, 20, 22, 24-26, 30 and 32-34 above, and further in view of the comment by the Examiner in the Office Action dated December 16, 2003.

Claims 11-16 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hsu et al. as applied to claims 2, 4, 5, 8, 20, 22, 24-26, 30 and 32-34 above, and further in view of the comments by the Examiner in the Office Action dated December 16, 2003.

Claims 31 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hsu et al. as applied to claims 2, 4, 5, 8, 20, 22, 24-26, 30 and 32-34 above, and further in view of the comments by the Examiner in the Office Action dated December 16, 2003.

Claims 5 and 20-23 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. And, claim 23 (after being rewritten to overcome the above rejections) would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims.

Claims 9, 27 and 28 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

CLAIM REJECTIONS UNDER 35 U.S.C. § 112

Claims 5 and 20-23 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In response, Applicants have deleted the word "substantially" from claim 5 and the reference to "high voltage" from claim 20. As a result, the rejections under 35 U.S.C. § 112 are rendered moot.

CLAIMS INDICATED AS ALLOWABLE

The Applicants thank the Examiner for the indicated allowance of claims 9, 23, 27, 28 if rewritten in independent form. Applicants note that claim 27 is presently written in independent form, and thus is in condition for allowance without amendment. Claim 28 depends from claim 27 and is allowable, as indicated by the Examiner, for at least this reason.

The limitation of claim 9 has been incorporated into independent claim 2. As such, independent claim 2 is in condition for allowance as recognized by the Examiner. Dependent claims 4, 5, 8 and 10-16 all depend from claim 2 and are allowable for at least this reason. The Examiner indicated claim 23 would be allowable if rewritten in independent form to include all limitations of the base claim (claim 20) and any intervening claims (none). Claim 23 has been so amended and thus claim 23 is in condition for allowance.

CLAIM REJECTIONS UNDER 35 U.S.C. §102 & §103

The cited art fails to disclose, teach or suggest the introduction of two different levels of halogen-containing impurities into two separate regions of a substrate. Independent claim 6 provides a method for forming a semiconductor device that includes, *inter alia*, introducing halogen-containing impurities into the semiconductor substrate below the first semiconductor surface at a first concentration, and also introducing halogen-containing impurities into the semiconductor substrate below the second semiconductor surface at a second concentration. The use of two distinct impurity concentrations to control oxide growth is neither disclosed, taught nor suggested by the cited art and thus independent claim 6 is allowable for at

least this reason. Claims 7 and 29 depend from claim 6 and are allowable for at least depending from an allowable independent claim.

Independent claim 20, as amended, provides a method of forming a semiconductor integrated circuit. In particular, the method includes, *inter alia*, selectively implanting halogen-containing impurities into two distinct regions of the semiconductor substrate. Further, the implantation doses fall within the specified range in the last limitation of claim 20. Such a method is neither disclosed, taught, nor suggested by the cited art, and for at least this reason independent claim 20 is in condition for allowance. Claims 22, 30 and 31 all depend from claim 20 and are similarly allowable.

Claim 32 provides a method of forming a semiconductor device. The method includes, *inter alia*, providing a substrate having first, second and third regions, and placing the substrate in an oxidizing environment. A thicker oxide layer forms over the first region where halogen-containing impurities are located and then over the second or third region. Further, the third region oxide layer thickness is different than both the first and second region thicknesses. For at least the reasons previously discussed in conjunction with other independent claims, independent claim 32 is in condition for allowance.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Appl. No. 09/216,078

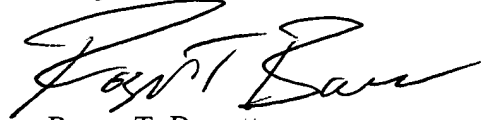
PATENT

Amdt. dated: March 2, 2004

Reply to Office Action of December 16, 2004

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Roger T. Barrett", written in a cursive style.

Roger T. Barrett
Reg. No. 41,599

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 303-571-4000 (Denver office)
Fax: 303-571-4321 (Denver office)
Attachments
RTB:sbm
60152413 v1